has perhaps not been laid upon this matter—the brain among the Polyprotodonts is less convoluted than among the genera of the other division. This statement is of course made with due regard to parallelism in size (see p. V[1]/). It is well known that the complexity of a brain bears a distinct relation to the size of its possessor within the group. *Now* the most ancient Marsupials are decidedly more Polyprotodont-like. No European form from the earlier periods is distinctly to be referred to the Diprotodonts.

But both divisions now exist in America and Australia.

"We must assume, therefore, one of three hypotheses. Either the differentiation into the two great divisions occurred in Jurassic or Cretaceous times before the migration of the order southwards; or the Diprotodont type is only a type, and not a natural group, *i.e.* it has been separately evolved in America and Australia; or, finally, there was formerly a land-connexion in the Antarctic hemisphere, along which the Diprotodonts of Australia wandered into South America. The middle hypothesis has this to commend it, that syiulactyiism occurs in both divisions, and that in some Diprotodonts the pouch opens backwards as it does in the Polyprotodonts.

So great are the resemblances that but little difference is really left—of great importance that is to say. Hence it is not difficult to imagine the reduction of the incisors having taken place twice.

In favour of the first hypothesis there are no positive facts.

Finally, in favour of the last, which is so strongly supported by the facts of distribution derived from the study of other groups of animals,[1] there is at least this striking fact or rather series of facts: that some of the South American fossil Polyprotodonts have a " strictly Dasyurine relationship."[2] If there has not been a direct migration, then the Dasyurine type has been twice evolved, an improbability that few will attempt to explain away. In any case we shall adopt here the usual division of the Marsupials into Diprotodontia and Polyprotodontia.

SUB-ORDER 1. BIPBOTODONTIA.

This group includes the herbivorous Marsupials. The incisors are as a rule three above, but one only in the

Wombats. Below

[1] **See for a further discussion of this subject the zoogeographical handbooks of Mr. Lydekker and myself, quoted on p. 78 (footnote).**

[2] **To this may be added Mr* Thomas' observation that the family of American Opossums is '* very closely allied to the Dasyuridae, from which, were It not for its isolated geographical position, it would be vory doubtfully Boparable,"**